

Applicant: Reiter and Witte  
U.S. Serial No.: 09/038,261  
Filing date: March 10, 1998  
Page: 2

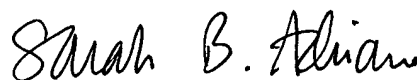
In the instant patent application, applicants claim the priority of provisional applications 08/814,279 (filed March 10, 1997), 60/071,141 (filed January 12, 1998), and 60/074,675 (filed February 13, 1998).

In a Filing Receipt, dated October 11, 2000, the Patent Office assigned a new serial number for 08/814,279; the new serial number is 60/228,816. The assignment of the new serial number does not affect the priority of 60/228,816 (formerly 08/814,279). Applicants provide a copy of the Filing Receipt which contained the newly assigned serial number (enclosed herein as Exhibit 2; one page).

The changes contained in the revised Declarations are merely to correct a typographical error and, therefore, do not involve new matter. Entry of the revised Declarations is respectfully requested.

No fee is deemed necessary in connection with the filing of this Petition. If any fee is necessary, the Patent Office is authorized to charge any additional fee to Deposit Account No. 50-0306.

Respectfully submitted,



---

Sarah B. Adriano  
Reg. No. 34,470  
Roberta D. German  
Reg. No. 43,902  
Patent Practitioners for Applicants  
Mandel & Adriano  
35 No. Arroyo Parkway, Suite 60  
Pasadena, California 91103  
626/395-7801  
Customer #:26,941

# **EXHIBIT 1**

**Original, executed Declarations  
(6 pages)**

**Amendment of the Declarations and  
Petition Under 37 C.F.R. §1.312**

MANDEL & ADRIANO

United States Patent Application

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: PSCA: PROSTATE STEM CELL ANTIGEN

The specification of which

- a. ☐ is attached hereto  
b. ☒ was filed on March 10, 1998 as application serial no. 09/038,261 and was amended on (if applicable) (in the case of a PCT-filed application) described and claimed in international no. filed and as amended on (if any), which I have reviewed and for which I solicit a United States patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (attached hereto).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

- a. ☐ no such applications have been filed.  
b. ☐ such applications have been filed as follows:

FOREIGN APPLICATION(S), IF ANY, CLAIMING PRIORITY UNDER 35 USC § 119			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)

ALL FOREIGN APPLICATION(S), IF ANY, FILED BEFORE THE PRIORITY APPLICATION(S)			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)

I hereby claim the benefit under Title 35, United States Code, § 120/365 of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

U.S. PROVISIONAL APPLICATION NUMBER	DATE OF FILING (Day, Month, Year)
60/228,816	March 10, 1997
60/071,141	January 12, 1998
60/074,675	February 13, 1998

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Sarah B. Adriano      Reg. No. 34,470  
SaraLynn Mandel      Reg. No. 31,853

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Mandel & Adriano to the contrary.

Please direct all correspondence in this case to Mandel & Adriano at the address indicated below:

Mandel & Adriano  
35 N. Arroyo Parkway, Suite 60  
Pasadena, California 91103  
Customer No.: 26941



I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name Of Inventor	Family Name Reiter	First Given Name Robert	Second Given Name E.
0	Residence & Citizenship	City Los Angeles	State or Foreign Country California	Country of Citizenship USA
1	Post Office Address	Post Office Address 10511 Kinnard Avenue	City Los Angeles	State & Zip Code/Country California 90024-6017/USA
Signature of Inventor 201: <i>Robert E. Reiter</i>			Date: <i>12/12/00</i>	
2	Full Name Of Inventor	Family Name Witte	First Given Name Owen	Second Given Name N.
0	Residence & Citizenship	City Sherman Oaks	State or Foreign Country California	Country of Citizenship USA
2	Post Office Address	Post Office Address 14727 Sutton Drive	City Sherman Oaks	State & Zip Code/Country California 91403/USA
Signature of Inventor 202:			Date:	

#### § 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim

that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
  - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim;
- or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
    - (i) Opposing an argument of unpatentability relied on by the Office, or
    - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
- (1) Each inventor named in the application:
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



## United States Patent Application

## COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: PSCA: PROSTATE STEM CELL ANTIGEN

The specification of which

- a. ☐ is attached hereto  
b. ☒ was filed on March 10, 1998 as application serial no. 09/038,261 and was amended on (if applicable) (in the case of a PCT-filed application) described and claimed in international no. filed and as amended on (if any), which I have reviewed and for which I solicit a United States patent.

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ALL FOREIGN APPLICATION(S), IF ANY, FILED BEFORE THE PRIORITY APPLICATION(S)			
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Sarah B. Adriano      Reg. No. 34,470  
SaraLynn Mandel      Reg. No. 31,853

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Mandel & Adriano to the contrary.

Please direct all correspondence in this case to Mandel & Adriano at the address indicated below:

Mandel & Adriano  
35 N. Arroyo Parkway, Suite 60  
Pasadena, California 91103  
Customer No.: 26941



I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name Of Inventor	Family Name Reiter	First Given Name Robert	Second Given Name E.
0	Residence & Citizenship	City Los Angeles	State or Foreign Country California	Country of Citizenship USA
1	Post Office Address	Post Office Address 10511 Kinnard Avenue	City Los Angeles	State & Zip Code/Country California 90024-6017/USA
Signature of Inventor 201:				Date:
2	Full Name Of Inventor	Family Name Witte	First Given Name Owen	Second Given Name N.
0	Residence & Citizenship	City Sherman Oaks	State or Foreign Country California	Country of Citizenship USA
2	Post Office Address	Post Office Address 14727 Sutton Drive	City Sherman Oaks	State & Zip Code/Country California 91403/USA
Signature of Inventor 202: <i>Owen M. Witte</i>				Date: <i>12/12/2000</i>

#### § 1.56 Duty to disclose information material to patentability.

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that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

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- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



# **EXHIBIT 2**

**Copy of Filing Receipt (1 page)**

**Amendment of the Declarations and  
Petition Under 37 C.F.R. §1.312**



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/228,816	03/10/1997		200	220002057500	6		

MANDEL & ADRIANO  
35 N. ARROYO PARKWAY  
SUITE 60  
PASADENA, CA 91103

## FILING RECEIPT



\*OC000000005465867\*

Date Mailed: 10/11/2000

Receipt is acknowledged of this provisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

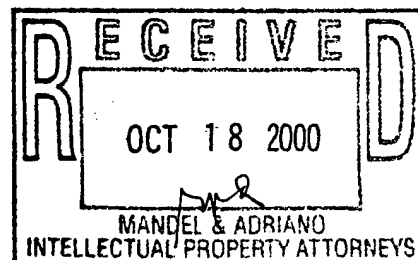
## Applicant(s)

ROBERT E. REITER, BEVERLY HILLS, CA ;  
OWEN WITTE, SHERMAN OAKS, CA ;

## Continuing Data as Claimed by Applicant

## Foreign Applications

If Required, Foreign Filing License Granted 10/11/2000



## Title

PROSTATE STEM CELL ANTIGEN-1, PSKA-1, A PROSTATE CANCER MARKER AND  
TARGET FOR ANTICANCER AGENTS

## Preliminary Class

Data entry by : ROBINSON, BETTY

Team : OIPE

Date: 10/11/2000



#22

CA

4/4/01

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Robert Reiter and Owen Witte

Serial No. : 09/038,261

Examiner: Dr. Larry Helms

Filed : March 10, 1998

Group Art Unit: 1642

For : PSCA: PROSTATE STEM CELL ANTIGEN AND USES  
THEREOF



35 N. Arroyo Parkway  
Pasadena, California 91103  
February 22, 2001

Honorable Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir/Madam:

**RESPONSE TO THE REQUIREMENT FOR  
FILING FORMAL FIGURES IN THE  
NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

The Notice of Allowance and Issue Fee Transmittal Forms, dated November 27, 2000, have been issued for the above-identified patent application, and a response is due February 27, 2001.

In the Notice of Allowability, paper 19, the Patent Office alleges that applicants have not submitted formal figures. Applicants contend that the formal figures were submitted to the Patent Office on October 31, 2000. Applicants provide herein, a copy of the formal figures which were submitted to the Patent Office, including a copy of the return postcard which accompanied the formal figures (enclosed herein as Exhibit 1; 26 pages). The Patent Office date-stamped the postcard "November 6, 2000" and returned it to applicants.

Applicant: Reiter and Witte  
U.S. Serial No.: 09/038,261  
Filed: March 10, 1998  
Page: 2

Additionally, applicants verified that the Patent Office received the formal figures, in a telephone call with the Examiner on January 16, 2001.

If any issues remain in connection with the formal figures, the Examiner is encouraged to contact the undersigned by telephone to discuss the same.

No fee is deemed necessary in connection with the filing of this Response. If any fee is necessary, the Patent Office is authorized to charge any additional fee to Deposit Account No. 50-0306.

Respectfully submitted,

Sarah B. Adriano

Sarah B. Adriano  
Registration No. 34,470  
Roberta D. German  
Registration No. 43,902  
Patent Practitioners for Applicants  
Mandel & Adriano  
35 N. Arroyo Parkway  
Pasadena, California 91103  
(626) 395-7801  
Customer #:26,941

# PART B—ISSUE FEE TRANSMITTAL

Complete and mail this form, together with applicable fees, to: **Box ISSUE FEE**  
**Assistant Commissioner for Patents**  
**Washington, D.C. 20231**

**MAILING INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE. Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

MANDEL AND ADRIANO  
 35 NO ARROYO PARKWAY  
 SUITE 60  
 PASADENA CA 91103



Note: The certificate of mailing below can only be used for domestic mailings of the Issue Fee Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

## Certificate of Mailing

I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

Renato Marco P. Domingo (Depositor's name)

*Renato Marco P. Domingo* (Signature)

February 22, 2001 (Date)

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/038,261	03/10/98	005	HELMS, L	1642 11/27/00
First Named Applicant REITER, 35 USC 154(b) term ext. = 0 Days.				

TITLE OF INVENTION **PSCA: PROSTATE STEM CELL ANTIGEN**

ATTYS DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1 30435.54USU1	536-023.100	V53	UTILITY	YES	\$620.00	02/27/01

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

- 1 Mandel & Adriano  
 2 The Law Offices of Kenneth K. Sharples  
 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)  
**PLEASE NOTE:** Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE **The Regents of the University of California**  
 (B) RESIDENCE: (CITY & STATE OR COUNTRY) **Oakland, California**

Please check the appropriate assignee category indicated below (will not be printed on the patent)  
☐ Individual ☒ Corporation or other private group entity ☐ government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

☒ Issue Fee  
☒ Advance Order - # of Copies 15

4b. The following fees or deficiency in these fees should be charged to:

DEPOSIT ACCOUNT NUMBER 50-0306  
 (ENCLOSE AN EXTRA COPY OF THIS FORM)  
☐ Issue Fee  
☒ Advance Order - # of Copies 15

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above.

(Authorized Signature) *Sarah B. Adrian* (Date) 2/22/01

NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

**Burden Hour Statement:** This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

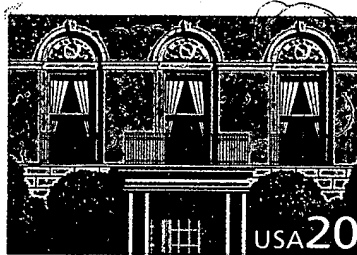
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMIT THIS FORM WITH FEE

# **EXHIBIT 1**

**Copies of formal figures  
for 09/038,261(26 pages)**

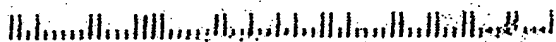
**Response to the Requirement for  
Filing Formal Figures in the  
Notice of Allowance**



Kerr Hall Northeastern University 1898-1998

**MANDEL & ADRIANO**  
**INTELLECTUAL PROPERTY ATTORNEYS**  
35 No. Arroyo Parkway, Suite 60  
Pasadena, California 91103

USPS 1998 4433

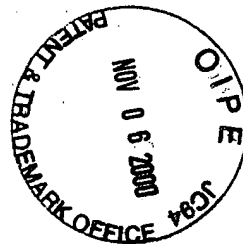


Receipt is hereby acknowledged for the following in the U.S. Patent and Trademark Office:

In re Application of: Robert E. Reiter and Owen N. Witte  
For: PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF  
Docket No.: 30435.54USU1  
Serial No.: 09/038,261  
Filed: March 10, 1998  
Due Date:  
Date Mailed: October 31, 2000

Transmittal sheet in duplicate in Certificate of Mailing  
Submission of Formal Drawings  
21 sheets of formal drawings  
Return Postcard

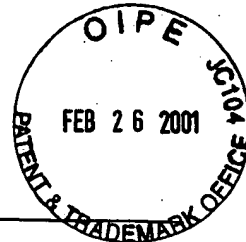
Patent





**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicants:** Robert E. Reiter and Owen N. Witte      **Examiner:** L. Helms  
**Serial No.:** 08/038,261      **Group Art Unit:** 1642  
**Filed:** March 10, 1998      **Docket:** 30435.54USU1  
**Notice of Allow. Date:**  
**Due Date:**  
**Title:** **PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF**



CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on October 31, 2000.

By: Renato Marco P. Domingo  
Renato Marco P. Domingo

Box Official Draftsperson  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal Sheet in duplicate containing Certificate of Mailing
- ☒ Submission of Formal Drawings
- ☒ 21 sheets of formal drawings
- ☒ Return postcard

Please charge any additional fees or credit overpayment to Deposit Account No. 50-0306. A duplicate of this sheet is enclosed.

**MANDEL & ADRIANO**

35 No. Arroyo Parkway, Suite 60  
Pasadena, California 91103  
(626)395-7801

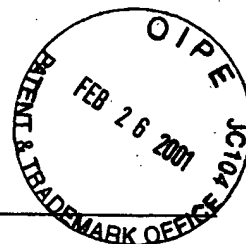
By:

Sarah B. Adriano

Name: Sarah B. Adriano  
Reg. No.: 34,470  
Initials: SBA

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicants:** Robert E. Reiter and Owen N. Witte    **Examiner:** L. Helms  
**Serial No.:** 08/038,261    **Group Art Unit:** 1642  
**Filed:** March 10, 1998    **Docket:** 30435.54USU1  
**Notice of Allow. Date:**  
**Due Date:**  
**Title:** PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF



CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on October 31, 2000.

By: Renato Marco P. Domingo  
Renato Marco P. Domingo

Box Official Draftsperson  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal Sheet in duplicate containing Certificate of Mailing
- ☒ Submission of Formal Drawings
- ☒ 21 sheets of formal drawings
- ☒ Return postcard

Please charge any additional fees or credit overpayment to Deposit Account No. 50-0306. A duplicate of this sheet is enclosed.

**MANDEL & ADRIANO**  
35 No. Arroyo Parkway, Suite 60  
Pasadena, California 91103  
(626)395-7801

By: Sarah B. Adriano  
Name: Sarah B. Adriano  
Reg. No.: 34,470  
Initials: SBA

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>Applicant:</b>	R. Reiter et al.	<b>Examiner:</b>	L. Helms
<b>Serial No.:</b>	09/038,261	<b>Group Art Unit:</b>	1642
<b>Filed:</b>	March 10, 1998	<b>Docket No.:</b>	30435.54USU1
<b>Title:</b>	PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF		

**CERTIFICATE UNDER 37 CFR 1.8:**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on October 31, 2000.

*Renato Marco Dominguez*  
Renato Marco Dominguez



**SUBMISSION OF FORMAL DRAWINGS**

Assistant Commissioner for Patents  
Attn: Official Draftsman  
Washington, D.C. 20231

Dear Sir:

Submitted herewith are 21 sheets of Formal Drawings for completion of this application, and in compliance with the requirements of the Official Communication from the Examiner dated December 6, 1999.

Respectfully submitted,

*Sarah B. Adriano*

Roberta D. German  
Registration No. 43,902  
Sarah B. Adriano  
Registration No. 34,470  
Attorneys for Applicants  
Mandel & Adriano  
35 N. Arroyo Parkway, Suite 60  
Pasadena, California 91103  
626/ 395-7801

## FIG. 1A

```
1  agggagagggc agtgaccatg aaggctgtgc tgcttgccct gttgatggca
51  ggcttgggccc tgcagccagg cactgccctg ctgtgctact cctgcaaagc
101 ccaggtgagc aacgaggact gcctgcaggt ggagaactgc acccagctgg
151 gggagcagtg ctggaccgcg cgcacccgcg cagttggcct cctgaccgtc
201 atcagcaaag gctgcagctt gaactgcgtg gatgactcac aggactacta
251 cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca
301 gcggggccca tgccctgcag ccggctgccg ccatccttgc gctgctccct
351 gcactcggcc tgctgctctg gggacccggc cagctatagg ctctgggggg
401 ccccgctgca gcccacactg ggtgtggtgc cccaggcctt tgtgccactc
451 ctcacagaac ctggcccagt gggagcctgt cctggttcct gaggcacatc
501 ctaacgcaag tttgaccatg tatgtttgca ccccttttcc ccnaaccctg
551 accttcccat gggccttttc caggattccn accnggcaga tcagttttag
601 tganacanat ccgcntgcag atggcccctc caaccntttn tgttgntggt
651 tccatggccc agcatttttc acccttaacc ctgtgttcag gcacttnttc
701 ccccaggaag ccttccctgc ccacccatt tatgaattga gccaggtttg
751 gtccgtggtg tccccgcac ccagcagggg acaggcaatc aggagggccc
801 agtaaaggct gagatgaagt ggactgagta gaactggagg acaagagttg
851 acgtgagttc ctgggagttt ccagagatgg ggcctggagg cctggaggaa
901 ggggccaggc ctcacatttg tgggntccc gaatggcagc ctgagcacag
951 cgtaggccct taataaacac ctgttgata agccaaaaaa aaaaaaaa
```

## FIG. 1B

```
MKAVLLALLMAGLALQPGTALLCYSCAQVSNECLQV
ENCTQLGEQCWTARIRAVGLLTVISKGCSLNCVDDS
QDYYVVGKKNITCCDTLCLNASGAHALQPAAAILALLPAL
GLLLWGPQQL
```

## FIG. 2

1 ATGAAGACAGTTTTTTTTATCCTGCTGGCCACCTACTTAGCCCTGCATCCAGGTGCTGCT  
 -----+-----+-----+-----+-----+-----+ 60  
 TACTTCTGTCAAAAAAATAGGACGACCGGTGGATGAATCGGGACGTAGGTCCACGACGA  
  
 M K T V F F I L L A T Y L A L H P G A A  
  
 61 CTGCAGTGCTATTCATGCACAGCACAGATGAACAACAGAGACTGTCTGAATGTACAGAAC  
 -----+-----+-----+-----+-----+-----+ 120  
 GACGTCACGATAAGTACGTGTCGTGTCTACTTGTGTCTCTGACAGACTTACATGTCTTG  
  
 L Q C Y S C T A Q M N N R D C L N V Q N  
  
 121 TGCAGCCTGGACCAGCACAGTTGCTTTACATCGCGCATCCGGGCCATTGGACTCGTGACA  
 -----+-----+-----+-----+-----+-----+ 180  
 ACGTCGGACCTGGTCGTGTCAACGAAATGTAGCGCGTAGGCCCGGTAACCTGAGCACTGT  
  
 C S L D Q H S C F T S R I R A I G L V T  
  
 181 GTTATCAGTAAGGGCTGCAGCTCACAGTGTGAGGATGACTCGGAGAACTACTATTTGGGC  
 -----+-----+-----+-----+-----+-----+ 240  
 CAATAGTCATTCCCGACGTCGAGTGTCACTCCTACTGAGCCTCTTGATGATAAACCCG  
  
 V I S K G C S S Q C E D D S E N Y Y L G  
  
 241 AAGAAGAACATCACGTGCTGCTACTCTGACCTGTGCAATGTCAACGGGGCCACACCCTG  
 -----+-----+-----+-----+-----+-----+ 300  
 TTCTTCTTGTAGTGACGACGATGAGACTGGACACGTTACAGTTGCCCCGGGTGTGGGAC  
  
 K K N I T C C Y S D L C N V N G A H T L  
  
 301 AAGCCACCCACCACCCTGGGGCTGCTGACCGTGCTCTGCAGCCTGTTGCTGTGGGGCTCC  
 -----+-----+-----+-----+-----+-----+ 360  
 TTCGGTGGGTGGTGGGACCCGACGACTGGCAGAGACGTCGGACAACGACACCCCGAGG  
  
 K P P T T L G L L T V L C S L L L W G S  
  
 361 AGCCGTCTGTAGGCTCTGGGAGAGCCTACCATAGCCCGATTGTGAAGGGATGAGCTGCAC  
 -----+-----+-----+-----+-----+-----+ 420  
 TCGGCAGACATCCGAGACCCTCTCGGATGGTATCGGGCTAACACTTCCCTACTCGACGTG  
  
 S R L \*  
  
 TCCACCCACCCCCACACAGG  
 421 -----+-----+-----+-----+-----+ 441

FIG. 3

1 M K I F L P V L L A A L L G V E R A S S hSCA-2  
1 M K A V L L A L L M A G L A L Q P G T A hPSCA  
1 M K T V L F L L L A T Y L A L H P G A A mPSCA

21 L M C F S G L N Q K S N\* L Y C L K P T I  
21 L L C Y S C K A Q V S N\* E D C L Q V E N\*  
21 L Q C Y S C T A Q M N N\* R D C L N V Q N\*

41 C S D Q D N Y C V T V S A S A G I G N L  
41 C T Q L G E Q C W T A R I R A V G L L T  
41 C S L D Q H S C F T S R I R A I G L V T

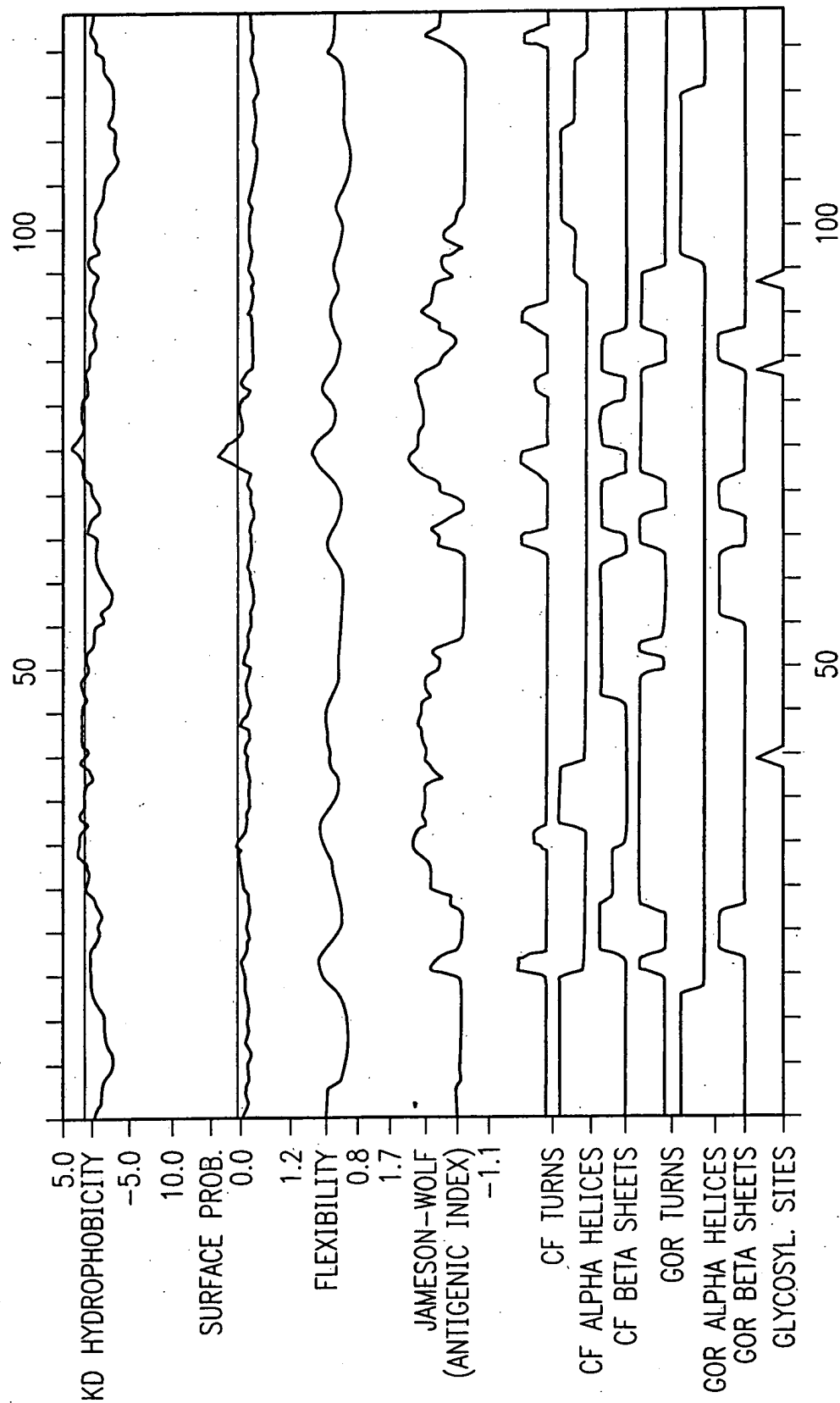
61 V T F G H S L S K T C S P A C P I P E G  
61 V - - - - I S K G C S L N C V D D S Q  
61 V - - - - I S K G C S S Q C E D D S E

81 V N V G V A S M G I S C C Q S F L C N\* F  
76 D Y Y V G K K - N\* I T C C D T D L C N\* A  
76 N Y Y L G K K - N\* I T C C Y S D L C N\* V

101 S A A D G G L R A S V T L L G A G L L L  
95 S G A H A L Q P A A A I L A L L P A L G  
95 N G A H T L K P P T T L G L L T V L C S

121 S L L P A L L R F G P  
115 L L L W G P G Q L' - -  
115 L L L W G S S R L - -

FIG. 4



HYDROPHOBICITY PLOT OF PSCA

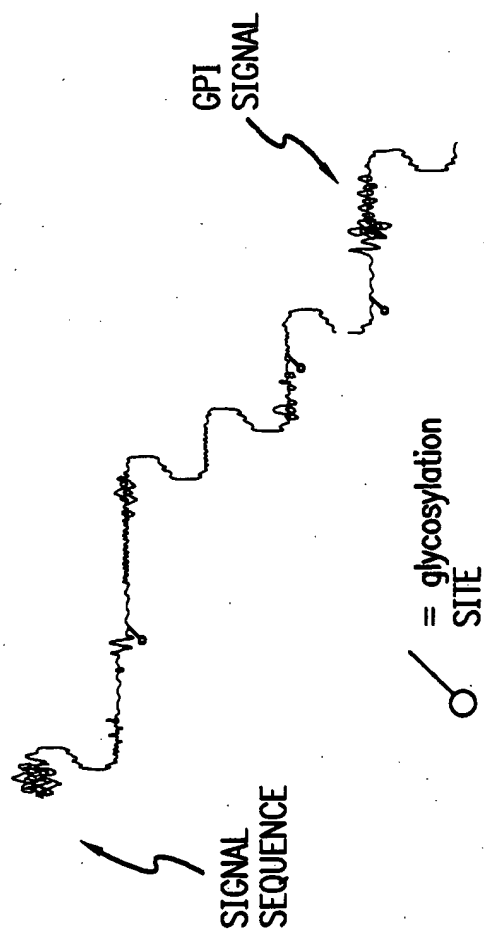


FIG. 5

FIG. 6

NORMAL  
 LNCAP AI  
 MATLYLU  
 DU145  
 PC3  
 LAPC-7 \*\*  
 LAPC-3  
 LAPC-4 AI





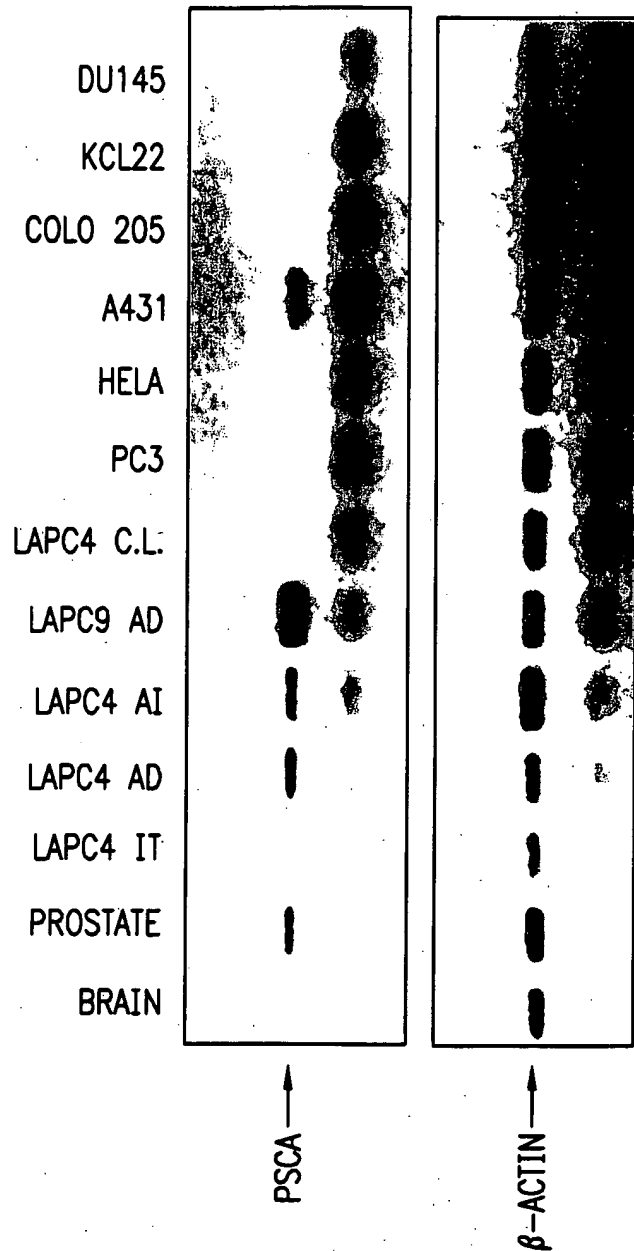
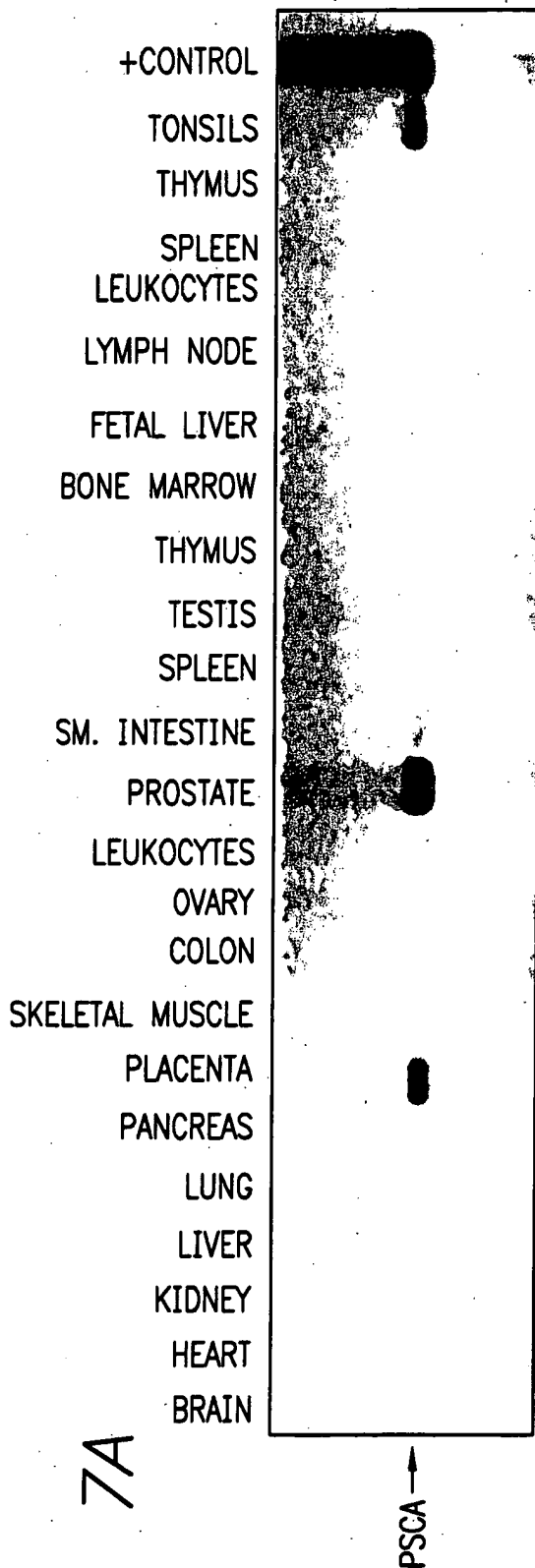


FIG. 8A

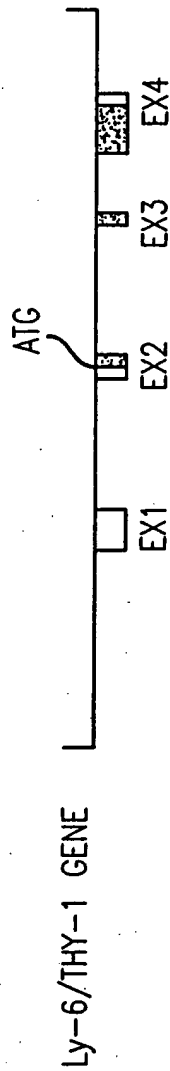


FIG. 8B

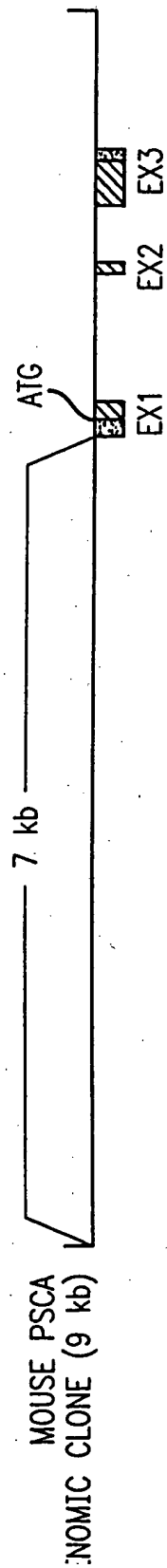
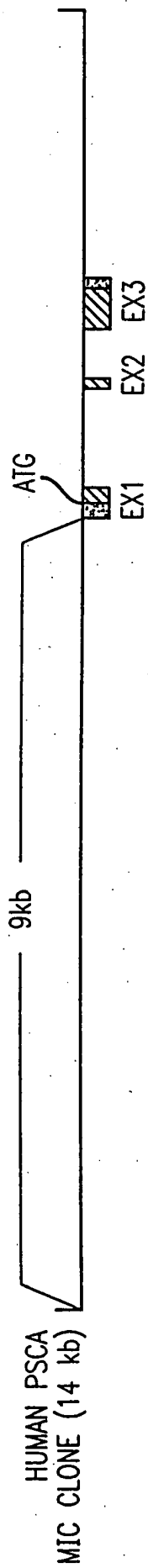


FIG. 8C



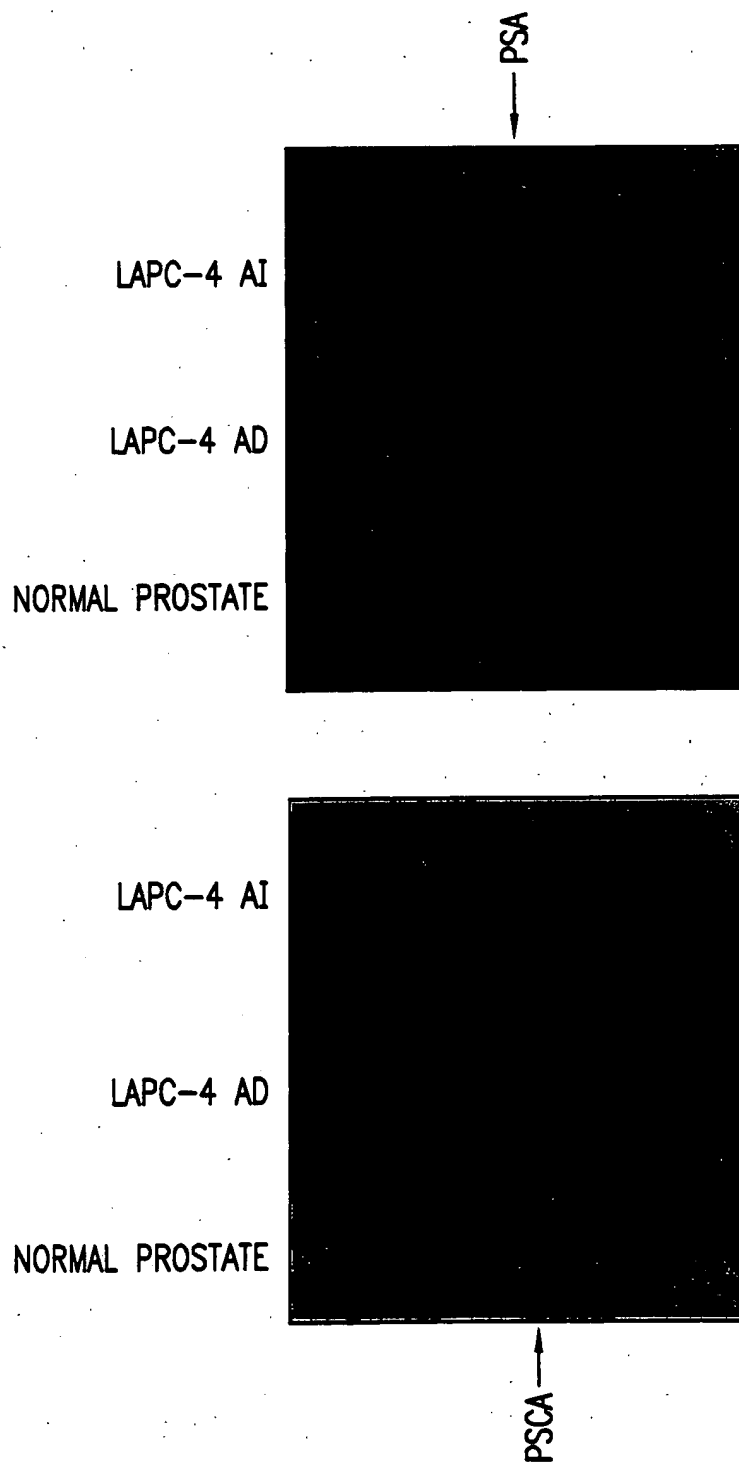


FIG. 9A

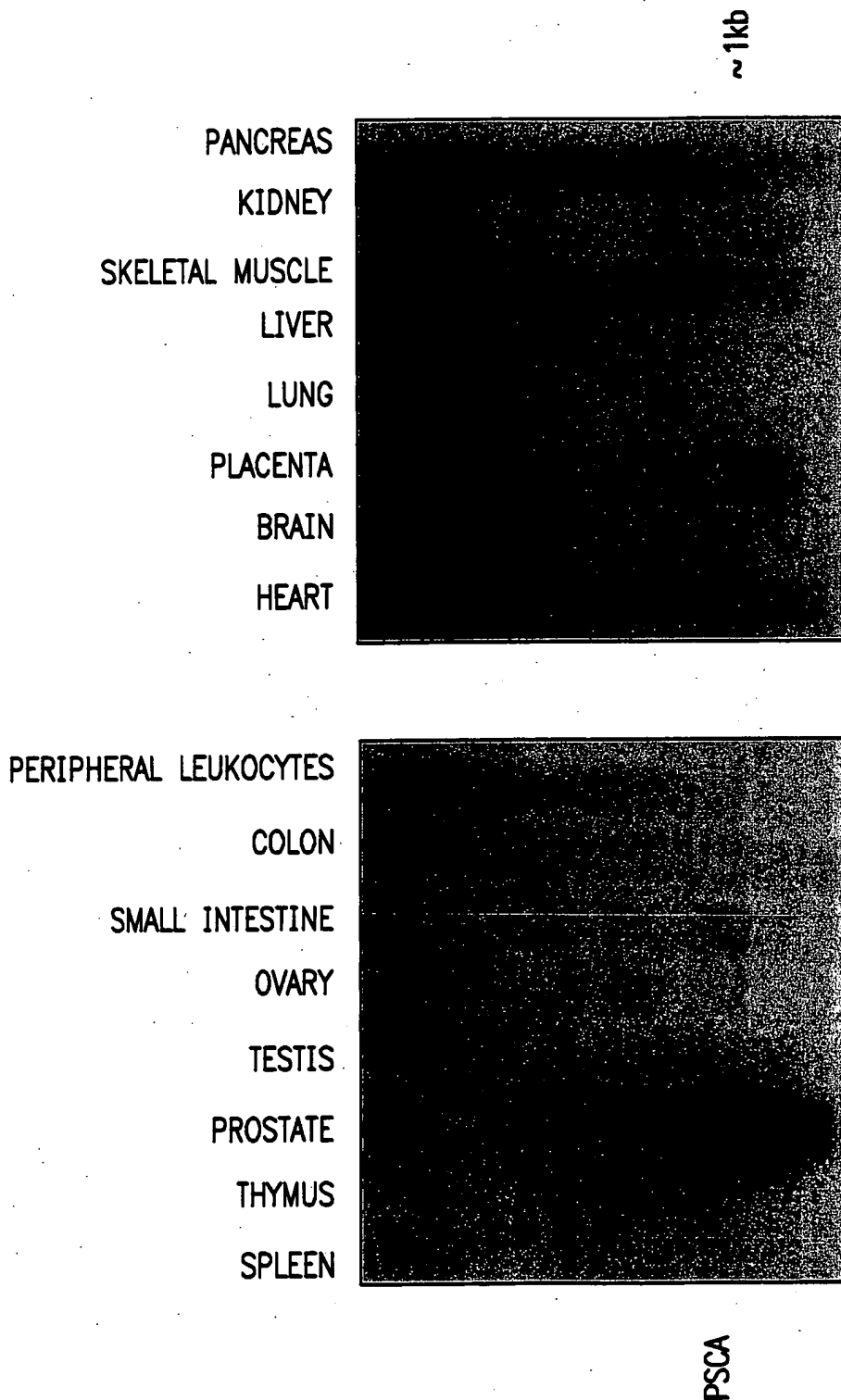
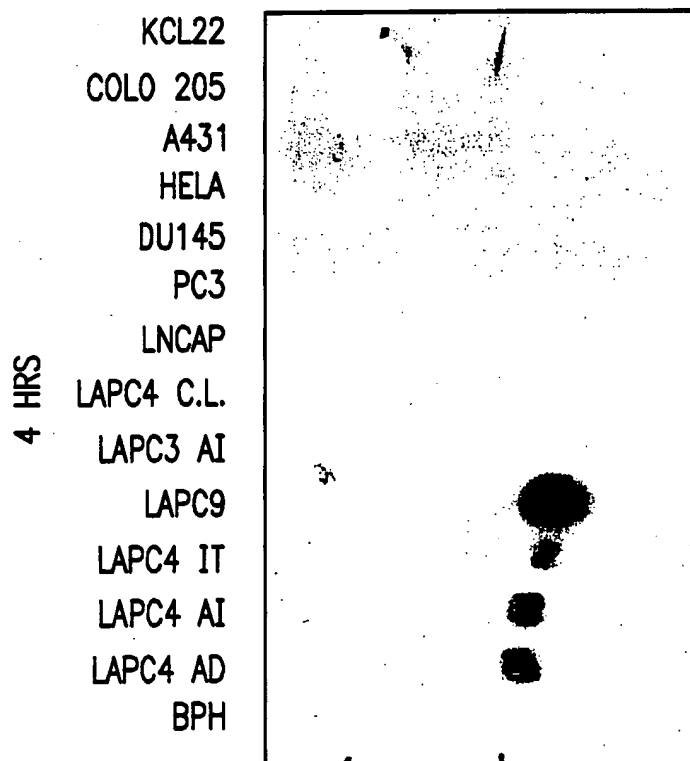
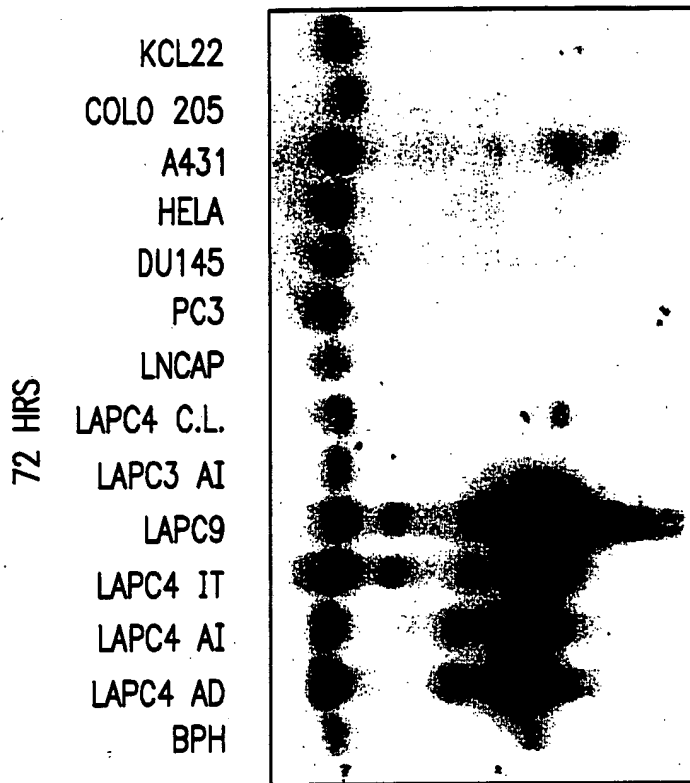


FIG. 9B

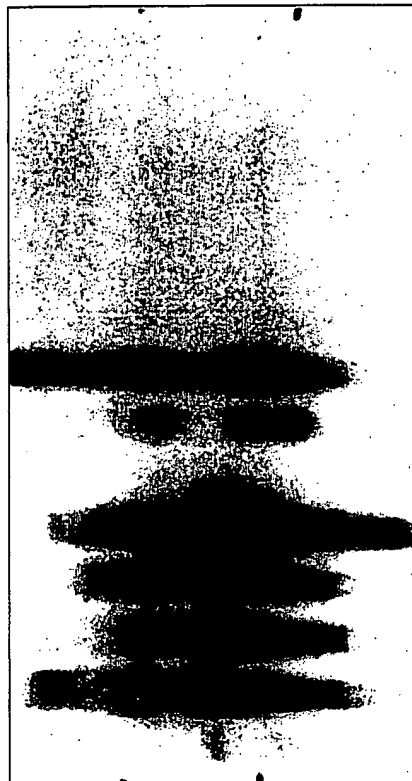


PSCA

FIG. 10-1

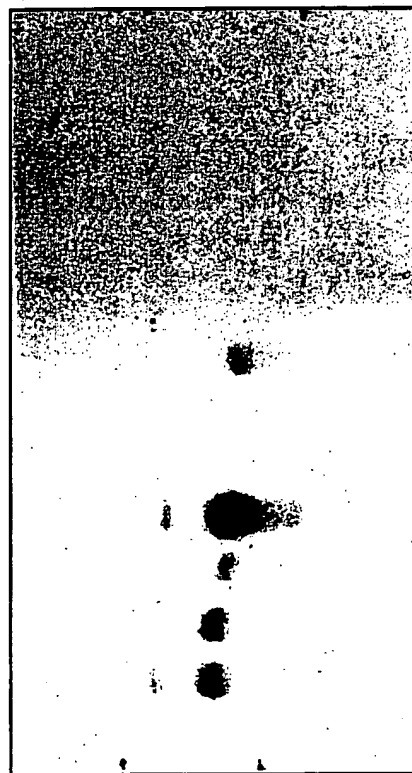
72 HRS

KCL22  
 COLO 205  
 A431  
 HELA  
 DU145  
 PC3  
 LNCAP  
 LAPC4 C.L.  
 LAPC3 AI  
 LAPC9  
 LAPC4 IT  
 LAPC4 AI  
 LAPC4 AD  
 BPH



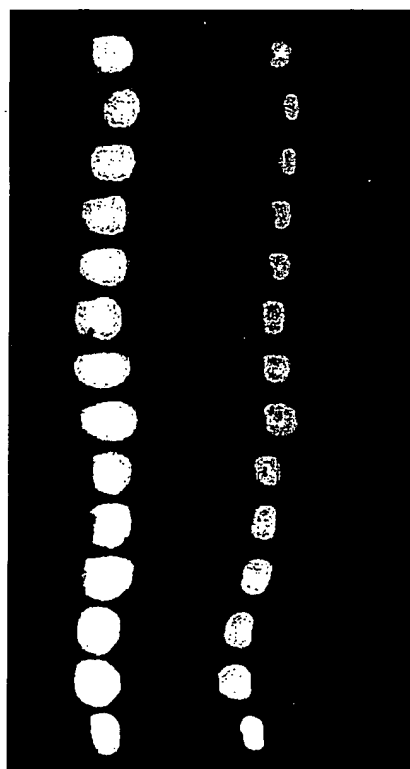
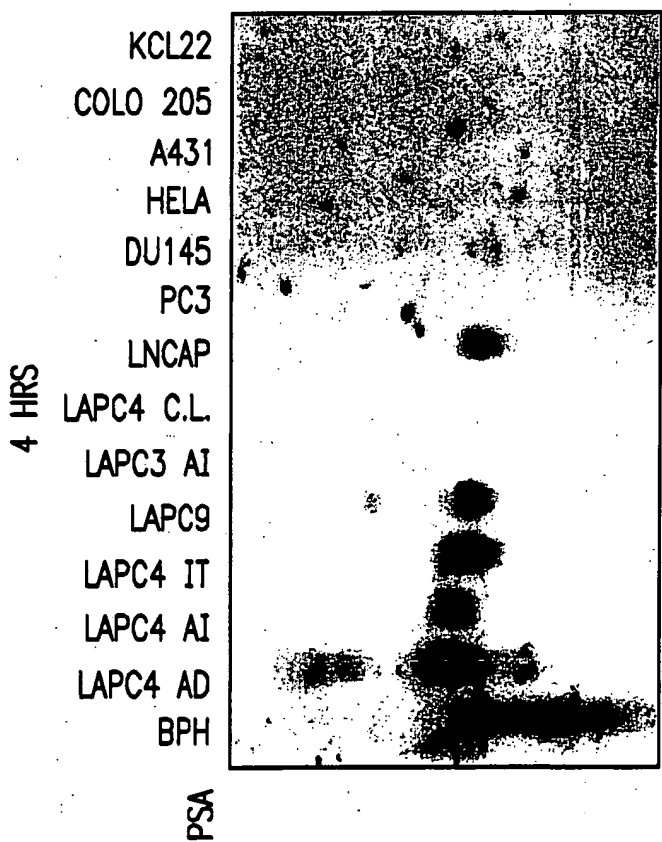
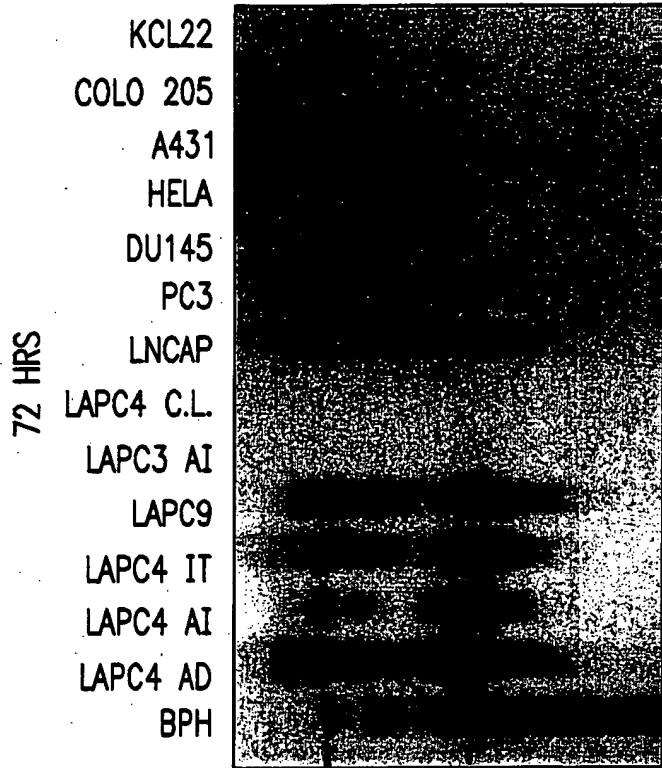
4 HRS

KCL22  
 COLO 205  
 A431  
 HELA  
 DU145  
 PC3  
 LNCAP  
 LAPC4 C.L.  
 LAPC3 AI  
 LAPC9  
 LAPC4 IT  
 LAPC4 AI  
 LAPC4 AD  
 BPH



PSM

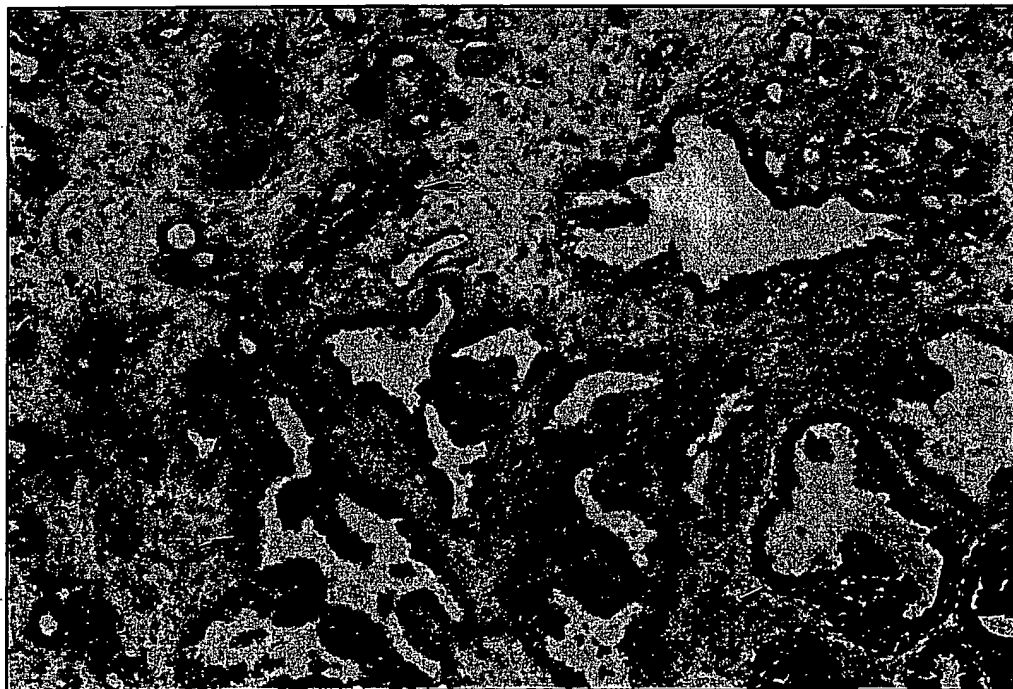
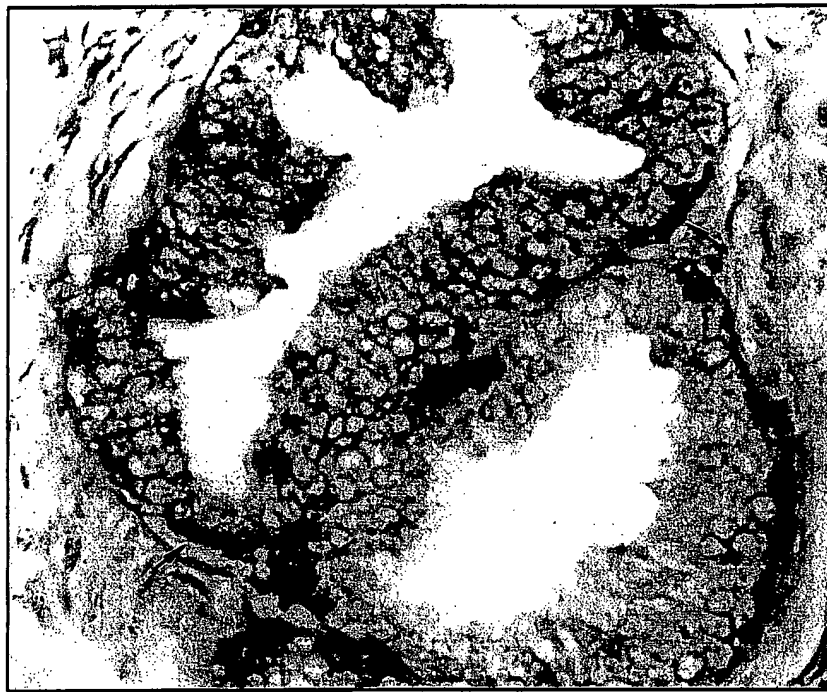
FIG. 10-2



ETBR

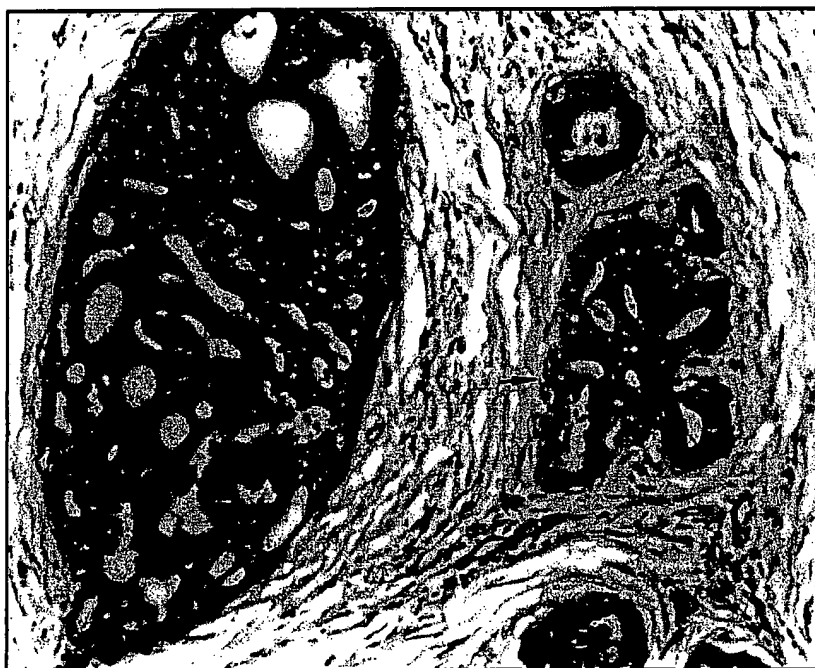
FIG. 10-3

*FIG. 11A*



*FIG. 11B*





*FIG. 11C*

SECRETED

CELL ASSOCIATED

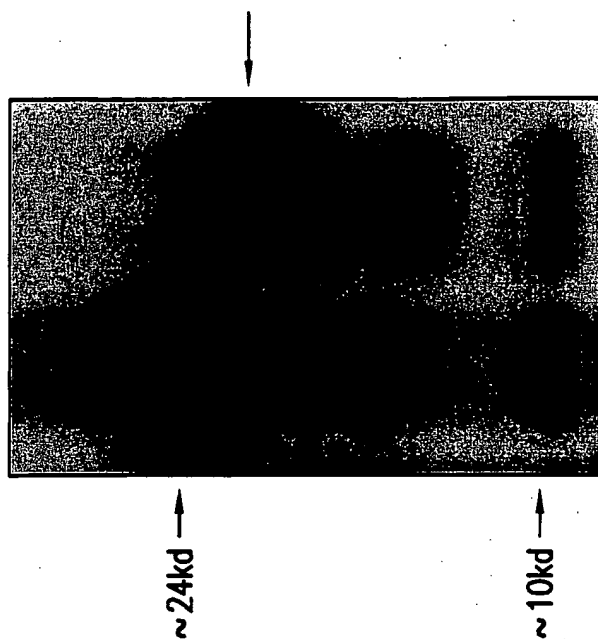


FIG. 12B

O GLYCOSIDASE

N GLYCOSIDASE F

CONTROL

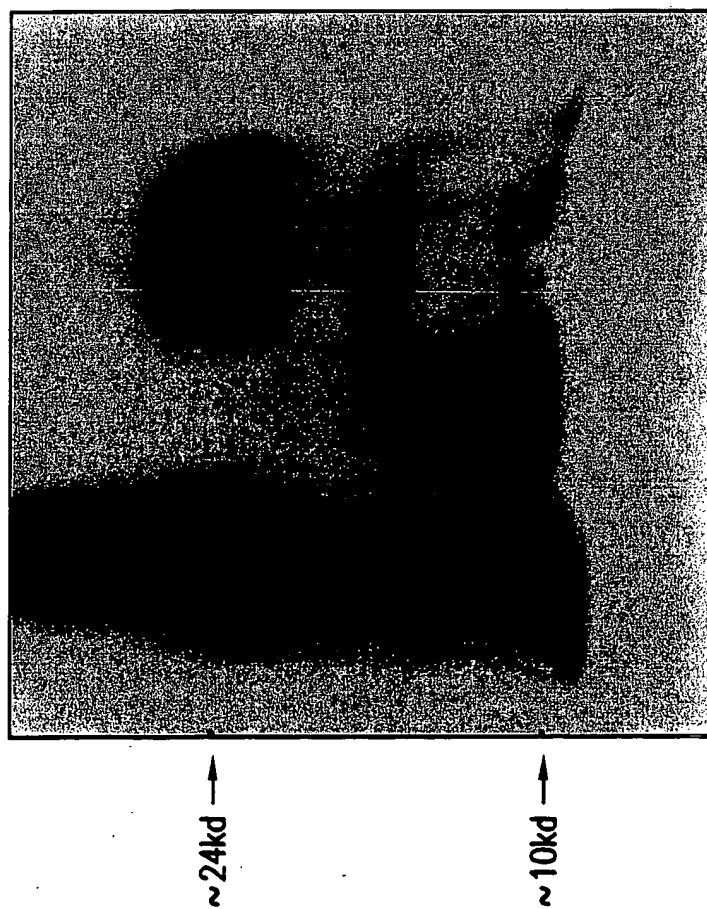


FIG. 12A

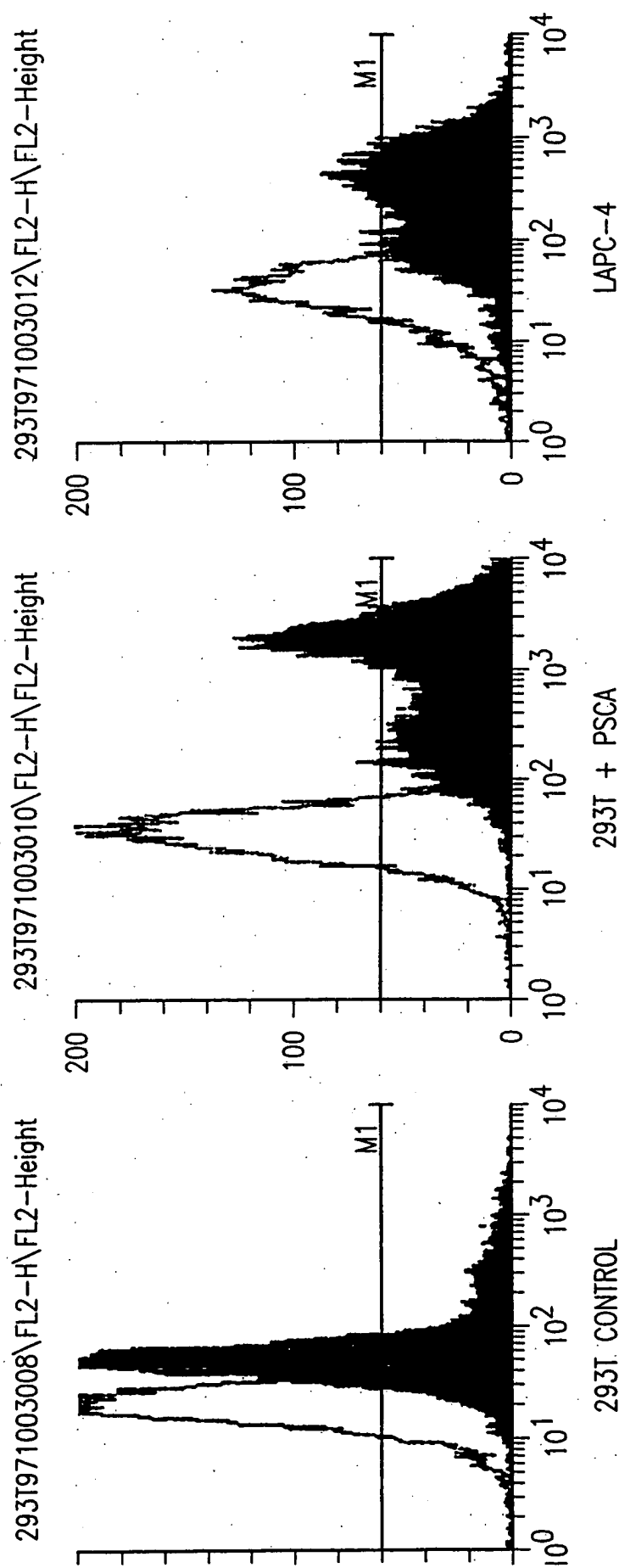


FIG. 12C

FIG. 13



FIG. 14A

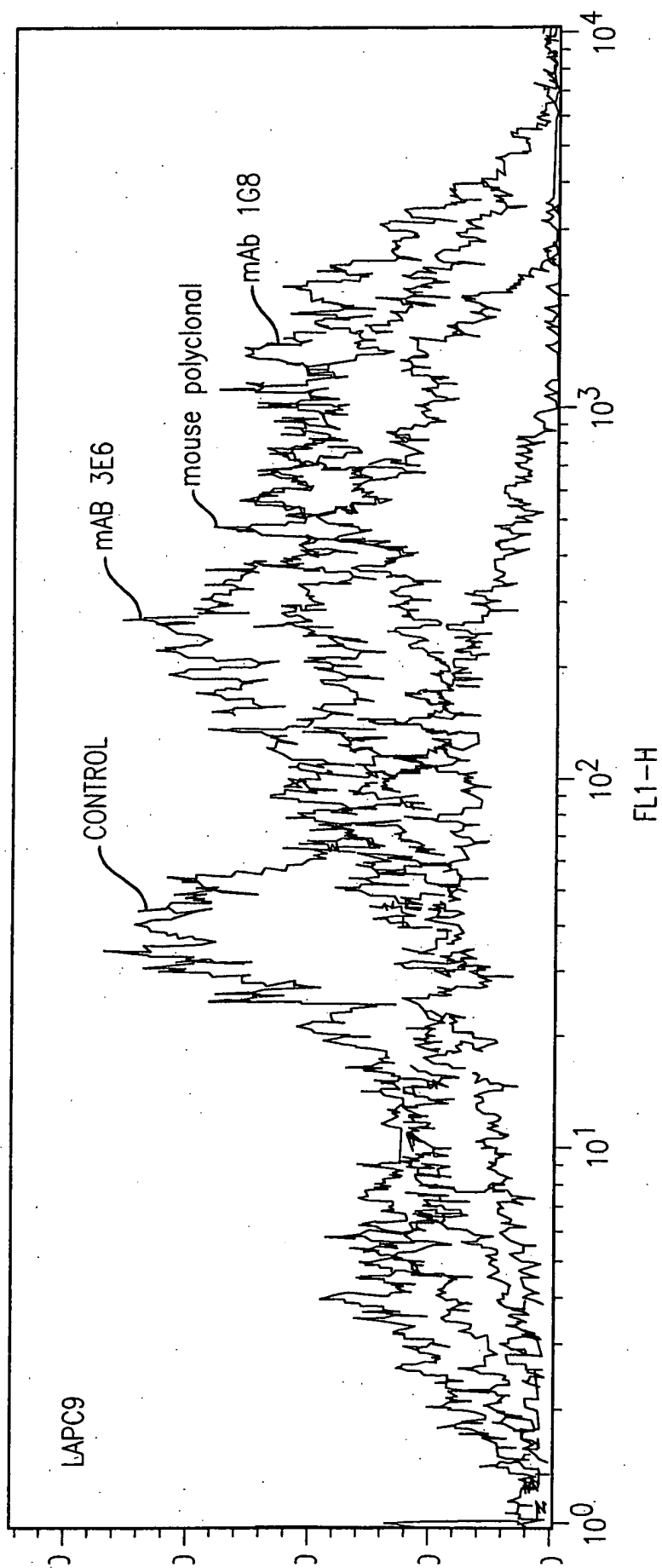


FIG. 14B

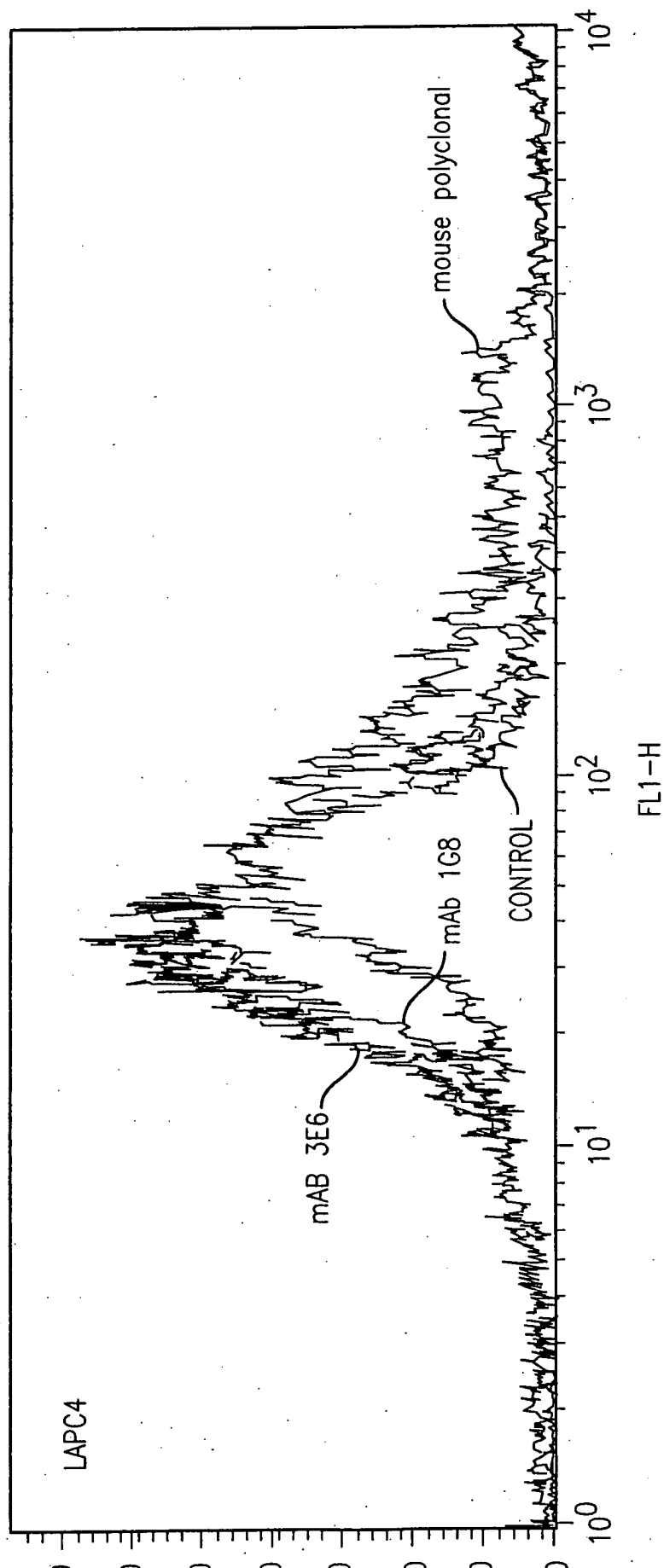


FIG. 14C

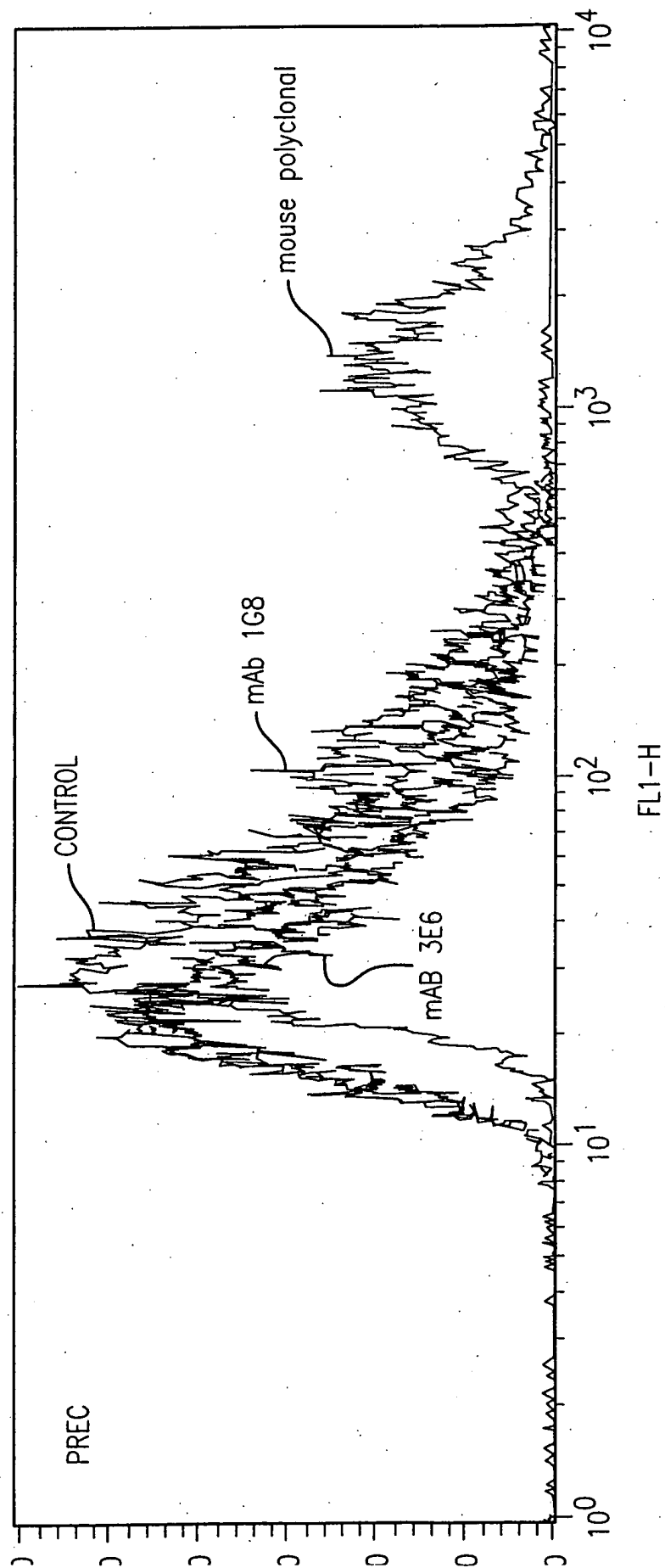


FIG. 15

